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No. 20,599

In the

United States Court of Appeals  
*For the Ninth Circuit*

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HENSLEY EQUIPMENT COMPANY, INC.,

*Appellant,*

vs.

ESCO CORPORATION,

*Appellee.*

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**Appellee's Brief**

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**Appellee's Brief**

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Because appellant (Hensley) failed (1) to set down the facts chronologically and (2) to summarize the testimony of the witnesses, appellee (Esco) must controvert appellant's statement, as follows:

I.

**STATEMENT OF FACTS**

**A. What the Prior Art Was**

The two-piece teeth with which the case is concerned go back at least to 1909 (Defendant's Exhibit N, R. 134). It was long recognized that the sharp tip would wear—so that it would be wise to just replace the smaller tip (hereinafter called “point”), rather than the whole tooth. Notwithstanding many efforts from the turn of the century

up to World War II to make a two-piece tooth, none became commercially available (R. 46, 151, 197).

Making the tooth in two parts required some means for fastening the two together. This created a dilemma that persisted until the Baer invention. The fastening means had to perform two purposes—which for years seemed to be poles apart. First, the fastening means had to be easily removable—otherwise the idea of a replaceable point was wasted. If the fastening means were too-easily removable, the parts could become disengaged in operation (R. 197, 299).

Loss of the point during digging meant that the adapter would have to bear the brunt of the digging—something it was never intended to do. Adapters have to be softer than points to transmit rather than resist shock and abrasion. If the adapter becomes deformed, it could not receive a new point. Thus, the whole benefit of having a two-piece tooth was lost.

All four witnesses in Plaintiff's direct case were conversant with the excavating art prior to the Baer invention. Three, Eyolfson, Graf and Wilcox are registered professional engineers. The fourth, Bremner, had wide experience in operating excavating equipment. Bremner added one exception to the testimony of the other three that prior to Baer, only single-piece teeth were used.

“Q. Any two-piece teeth?

A. Oh, there was somebody out there with a two-piece tooth. I would not say what brand or particularly remember what it looked like, perhaps. It could have been something on the order of an H & L drive-on fit.

Q. I hand you now Hosmer Patent No. 2,251,487, Defendant's Exhibit S and ask you if your recollection is along the line of that patent shown?

A. Well, this basically is a drive-on, wedge-type fit where you have got a triangle or a cone in which you



are driving a tooth. Yes, this could be. This would perhaps be more applicable to smaller items rather than the larger machines.

Q. Do you notice also the indented sides or crimped or dimpled sides? Does that square with your recollection of what you saw back in those days?

A. That could be. I couldn't swear to that at all.

The Court: Let me see that.

Mr. Fallon: How are these teeth removed or the points removed from the teeth?

A. Brute strength or else with a welding torch. When I say brute strength, that would be the sledge hammer and chisel." (R. 295-6).

Hosmer is seen in Defendant's Exhibit S (R. 134) on which Hensley relies (Appellant's Brief—page 46). Hosmer and each other patent advanced by appellant were issued at a time when those in the excavating art stayed with single-piece teeth—notwithstanding the economies available from two-piece teeth (R. 294, 300).

"The commercial value of such excavating teeth lies in the fact that the point can be easily fitted on to the adapter, maintained securely thereon during the heavy stresses encountered in field operations and yet readily releasable for replacement when worn down or when it otherwise becomes time to replace the point. The resultant savings in man hours and metal have been a boon to the heavy construction industry."<sup>1</sup>

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1. The foregoing quotation was taken from page 2 of the Trial Court's Opinion. This Opinion, which embodies the Findings of Fact and Conclusions of Law, is reproduced as an Appendix hereto for ease of references. Inasmuch as the printing of the Opinion does not correspond to the typewritten paging, the printed version in the Appendix is keyed to the clerk's transcript, the foregoing excerpt, for example, being taken from page 475. Hereinafter, references to the Court's Opinion will follow the designation suggested by appellant, viz., (Clk. Tr. 475). The other references are to the reporter's transcript and in accordance with usual form are merely designated (R. ....).

**B. What the Patentee Did**

According to the patent, the nose of the adapter is wedge-shaped, having converging faces. The point has a rearwardly-facing socket defined by similar wedge faces, so that the point can seat on the adapter nose. The upper portion of the point is relatively thick or heavy to constitute a spike portion. Rearwardly of the point are provided integral tongues which fit into recesses provided on the adapter. The mating portions of the point and adapter are arranged so that the point can move rearwardly on the adapter as wear occurs on the seating or bearing faces of the nose and socket. For this purpose, spacing between the socket apex and the nose is provided, as also is a spacing between the rear ends of the recesses and the rearwardly-extending tongues (Pl. Exh. 2, R. 213).

When the adapter has its rear or shank portion secured to the lip of a piece of excavating equipment, the tongues serve to stabilize the point against transverse stresses. This provides stabilization in addition to that provided by the wedge faces. In so doing, the tongues serve to protect the locking pin against deformation (R. 201). Even under heavy transverse stress, the pin is merely used to oppose gravity to keep the point from falling off the adapter (R. 56). Thus, there is no deforming stress applied to the pin which would make it difficult to remove when point replacement becomes necessary (R. 102). Because of this, four points of the patent type can be replaced within five minutes (R. 56).

The spike portion of the point is normally stressed at its tip, and the type of stress that would tend to deform the pin is a transverse stress, *i.e.*, one at right angle to the length of the spike portion (R. 51). These transverse forces can reach upwards of 10,000-20,000 foot-pounds (R. 53-54). When transverse forces of this order are applied

to the tip of the point spike portion, the spike portion acts as a cantilever to transfer the stress to the rear of the point, using the adapter nose as a fulcrum (R. 155, 199). In operation under destructive stresses applied transversely of the spike portion, the point, while deflecting, moves forward slightly, movement which is made possible by the spacing provided between the point and the adapter so that the tongues can come into bearing engagement with the walls of the adapter recesses. The tongues fit within the adapter recesses with substantially parallel edges, with a sliding fit in order to accommodate wear on the wedge bearing surfaces (R. 213). Deflections of the order of  $1\frac{1}{2}$  inches are not uncommon at the spike portion tip where they are transmitted in lever fashion by means of the heavy spike portion to the tongues so as to prevent deformation of the locking pins (R. 620).

Thus, to additionally stabilize the point on the adapter—so as not to deform the securing pin, Baer made use of three features—(1) a heavy spike portion on the point top which acted as a lever to cause the shock load to “leap frog” the pin and be taken up by (2) rearwardly-extending tongues which, because of the point contour was (3) spaced from the adapter to permit the tongues to engage recesses in the most stalwart portion of the adapter.

Appellee, Esco Corporation, marketed excavating teeth made according to the Baer patent starting about 1945. The Baer-type excavating teeth enjoyed an immediate and widespread commercial success (R. 300). Licenses under the patent were taken by such principal tooth manufacturers as American Steel Foundries, now Amsted Industries, the American Manganese Steel Company Division of American Brake Shoe Company, and Caterpillar Tractor Company (R. 215).

For the purpose of testing excavating teeth, Esco Corporation initially used a 3,000-ton press, but the results were erratic (R. 623). Paul Eyolfson, Manager of Expendable Products of the Construction Equipment Division of Esco Corporation, gathered data on tooth failures in the field and developed a testing device in the nature of a guillotine for duplicating field failures (R. 622, 637). This testing machine was and is used in the ordinary course of business to test teeth for minimum performance, and over the years for a six-inch Baer-type tooth an impact resistance of 6,000 foot-pounds was determined to be a satisfactory minimum (R. 63).<sup>2</sup>

### C. Hensley Activity

The business of the appellant, Hensley, is to sell replacement parts for the construction industry, having started this in 1947 (R. 164). Appellant's chief executive officer is Clyde C. Hensley, who prior to 1947 had no experience with the use and operation of excavating teeth (R. 168-9). In 1948, Hensley started making replacement points for the teeth of other manufacturers: Caterpillar, H & L, Ateco, and Sabre. In 1960, Hensley started making replacement points for the Baer-type excavating teeth of Esco. For this purpose, Hensley purchased five Esco two-part teeth (points and adapters) in order that it might "capture the dimensions" that are necessary to fit its manufactured Esco-type points to the Esco adapters (Clk. Tr. 476). Hensley knew about the patent from the fact that the copied points ear-

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2. The pin is not stressed all the time and may not be stressed at all in some easy working conditions. However, the tooth has to be capable of meeting any type of digging stress, and the function of the combination of the spike, rearwardly-extending tongues and spacing can be analogized to that of a man's suspenders. With the fitting of pants, the suspenders perform no function most of the time but are available and helpful at times of extraordinary stress



ried the number of the patent in suit (R. 171, 173). One hundred nine of the copied points, of all sizes, were made by appellant (R. 318). The joint pre-trial statement of March 13, 1964, admitted as an undisputed fact:

“That Defendant has manufactured a small number of points as defined in claims 8 and 9 of the patent in suit, and that these points infringe said claims if the claims are valid.” (Clk. Tr. 477).

After it was cautioned against manufacture of infringing points, Hensley changed the shape of the rearwardly-extending tongues to provide just a  $\frac{1}{8}$  inch clearance between the tongues and recesses in which they are received when in use (R. 180). This can be graphically visualized by comparing Pl. Exh. 12 and 13, which are brochures of the first and second versions (Appendix page 1).

No field tests or other operational tests were performed to determine the function of the changed tongues (R. 180). When questioned about the differences in the manufacture of these two items, Mr. Hensley testified as follows:

“The Court: And you are familiar with differences in the manufacture of 12 and the manufacture of 13?

The Witness: I am, your Honor.

The Court: Would you tell us what those differences are?

The Witness: In Exhibit 12, the ears were somewhat square in shape and in Exhibit 13 they were more of an extended shark fin without parallel sides.

The Court: Other than the ears, is there any difference in those two manufactures?

The Witness: No sir, not any difference whatsoever.” (R. 174).

In the initial production which was copied from the Esco commercial construction, Hensley applied integral wedges or fin-like projections to the sides of the points (Pl. Exh.

4). These fins did not extend over the portion of the points carrying the tongues—the points being faithful copies of the Esco commercial construction (Pl. Exh. 4). When the shape of the tongues was changed to yield the  $\frac{1}{8}$  inch spacing, the fins (designated “shark fins” by Hensley) were extended so as to be co-extensive with the changed tongues (R. 175-6). In this fashion, the horizontal dimension of the tongue was increased, while the vertical dimension was decreased (Pl. Exh. 5, R. 176).<sup>3</sup>

Hensley admitted to the stabilizing function of the rearwardly-extending tongues (R. 182). Further, Hensley admitted that there was no difference in the operation of the Hensley and Esco points (R. 182-3). The change in tongue shape was merely Clyde C. Hensley’s “intuition” (Pl. Exh. 14, page 23). Still further, Hensley did not deem the angle of the sides of the tongues to be of any significance (R. 354).

#### **D. Pre-Trial Activity**

Esco brought suit in March of 1961. In October, 1961, the deposition of Clyde C. Hensley was taken. In it, he could give no reason for the particular shape of the changed tongues and more particularly the extension of the shark fin (Pl. Exh. 14 at page 49). In September, 1962, depositions of employees of Hensley’s eastern distributor, W. M. Hales Company, Inc., were taken. These showed that the distributor was selling the point and adapter combination, thus infringing claim 5 of the patent. However, the Court found that this activity could not be attributed to Hensley.

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3. “While the ‘shark fin’ structure on the outside of the tongue sides of the Hensley-Esco point may have some value for the purpose of throwing or sweeping away aggregate in a digging operation, the subsequent change in the Hensley-Esco tongue with an extension of the shark fin so as to make it co-extensive with the tongue merely resulted in a change in appearance (R. 174), and in no way aided the operation of the shark fin. . . .” (Clk. Tr. 484).

Thereafter, Elseo tested a number of points on the above-mentioned guillotine which were shown to the Court as well as the film showing the testing procedure (Pl. Exh. 6-10). The object of the tests was to determine whether Hensley points had impact resistance equal to that of the Baer patented point—whether the teeth were sufficiently stabilized so that pin removal was easy (R. 202, 621).

The first point tested was a replica of that shown in the patent (Pl. Exh. 7). Even at a stress of 500 foot-pounds (well below the 6,000 foot-pounds minimum for this size point) there was movement of the point relative to the adapter of 1/16-1/8 inch (R. 62-3). The point patterned after the patent was satisfactorily used up to and including 16,000 foot-pounds with no deformation in the pin, no damage to the adapter and with the pin readily removable (R. 62-3, 577).

A point like the point shown in the patent, but without the rearwardly-extending tongues, was tested and found to move 1/4 inch at 500 foot-pounds, and at 3,000 foot-pounds, the pin bent double (Pl. Exh. 8, R. 63-4). This demonstrated the advantage of having the rearwardly-extending tongues to protect the pin against deformation so as to maintain the point readily removable irrespective of stress (R. 56). Next tested were two six-inch Hensley points, and each of these was readily removable from an impacted but undamaged adapter, after stresses of 16,000 foot-pounds (Pl. Exh. 6 and 10, R. 65-8).

In each of the tested points (Pl. Exh. 7-10), the stress was applied at the tip of the point and generally transverse thereto—85° (R. 95), thereby simulating heaviest field loading (R. 54). In each of the cases of the tongue-equipped points, there was a noticeable “peening” or scarring of the surfaces of the tongues where they came in contact with the walls of the adapter recesses (R. 156-58). In this fashion,

the tongues functioned to protect the pins from deformation and made point removal simple.

The type of test employed is significant as was admitted by both sides at the trial—only a dynamic test, one approximating actual field conditions, was reliable (R. 449).

Hensley performed only a static test on its points at the Stonehurst Machine & Foundry Co. in Oakland (Def. Exh. H), to see whether the tongues would make contact with the walls of the recesses (R. 322). No load was applied to the tips of any of the three points tested, and, as a matter of fact, the loading on the point was moved successively rearwardly as the point size increased (R. 378-384, 571). The loading was artificial, having no relation to stress application in the filed of operation (R. 574, 579). In the case of the four and five-inch size Hensley points, the points shattered in the box section (Def. Exh. I and J) while in the six-inch size, (Pl. Exh. K) where the loading was about the fulcruming point, (R. 574), the nose failed in compression. In the four and five-inch points, there was peening or cold working of the rearwardly-extending tongues (R. 329, 340).<sup>4</sup>

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4. "Of the two tests, the Court finds the plaintiff's guillotine test (a dynamic test) to be by far the more reliable and as close to normal severe operations as a test could come. The Hensley tests, which were designed by an employee who has a PH.D. degree in electricity and metallurgy (R. 376), but who was not present at the trial, were run by Clyde C. Hensley, whose competence as an engineer does not approach that of Eyolfson and Graf, who ran plaintiff's tests. Furthermore, the Hensley tests, which were in the main made on smaller-sized points (where the additional stabilization effect has lesser importance), were variable and impossible to evaluate. The Hensley tests failed to place the load (stress) on the tip of the tongue where it should properly have been placed, in order to simulate stress applications found in field operations, while in plaintiff's tests the load was placed on the tip of the point and generally transversely thereto, thereby simulating heaviest field loading." (Clk. Tr. 485).



### **E. Summary Judgment Hearing**

A Motion for Summary Judgment based on invalidity and non-infringement was argued from 10:30 in the morning until 4:00 in the afternoon of February 3, 1964, before the Hon. William T. Sweigert. This followed extensive briefing and the presentation and description of various exhibits during the course of argument. The motion was denied. Judge Zirpoli excerpted part of the reported argument before Judge Sweigert and incorporated the same as part of his Opinion (Clk. Tr. 489-490).

### **F. The Trial**

At the trial of the lawsuit, which consumed four days, Esco's first witness was Paul Eyolfson, an Esco employee and a registered professional engineer who designed and operated the guillotine in the ordinary course of business (R. 62, 622). The witness Eyolfson testified from personal knowledge of the excavating point field in the period 1941-45 wherein only single-piece teeth were employed (R. 46). The guillotine test performed by the witness on plaintiff's exhibits 7, 9 and 10 show that the Hensley and Baer points operated in the same way, *i.e.*, the rearwardly-extending tongues provide a stabilizing function in addition to that provided by the wedge faces. He further stated that this guillotine test was as close to normal severe operations as a test could come (R. 67-8) and also that the tongue surfaces need not be parallel to provide the stabilizing function (R. 107).

Esco's second witness was Professor Sam H. Graf, retired head of mechanical engineering at Oregon State College and also a registered professional engineer, who testified from personal knowledge that the excavating teeth used prior to World War II on such jobs as the Bonneville project and Grand Coulee Dam were all single-piece teeth (R. 151).

He further testified that the action of plaintiff's exhibits 7, 9 and 10 under testing was identical (R. 157). Still further, the test simulated field conditions the points would have to withstand, conditions that would make points difficult to remove if the pin became deformed (R. 161-2).

Esco's third witness was the above-mentioned Clyde C. Hensley, called as an adverse witness, who admitted that the tongues become larger in the Hensley-Esco style points as the size becomes larger (R. 178), and that stabilization becomes more important as size increases (R. 371).

Esco's fourth witness was John M. Wilcox, Esco's employee and a registered professional engineer, who testified from personal experience of the problems facing the skilled art worker in the period 1940-45. This witness also applied the language of claims 8 and 9 to the defendant's points to show that for each element specified in the claim, there was a corresponding element or portion in the defendant's smallest construction—the 4" size (Pl. Exh. 5, R. 208-09).

The last direct case witness for Esco was John Bremner, a man with wide practical experience in large earth-handling operations such as the Bayonne dry dock, Red Hill-Pearl Harbor Tunnel, Camino Dam, Ice House Dam, Union Valley Powerhouse and the Kitimat Development (R. 293). Mr. Bremner testified to the commercial success of the Baer patented tooth and the fact that the point was the first commercially-available point which was readily removable from the adapter even when powerful stresses had been applied to it.

Hensley's case consisted of two witnesses, Clyde C. Hensley, president of the appellant, and Dirks B. Foster, a patent lawyer. The witness Hensley described appellant's test as shown in a film (Def. Exh. H). The witness Foster discussed the patent in suit, the file wrapper of the patent (Def. Exh. N) and a large number of prior art patents,

all of which had been before the court on Motion for Summary Judgment, with the exception of Mekeel No. 1,951,988. (Def. Exh. QQ). The witness Foster admitted, however, that the relevant showing in Defendant's Exhibit QQ was the same as that in Defendant's Exhibits S, V and BB, which had been before the court previously (R. 537).

Esco's rebuttal case included testimony by the witnesses Graf and Eyolfson about the unrealistic character of the defendant's test (R. 574, 611). A further rebuttal witness was Halle Robb, who testified to the character of the earth-working operation using Hensley teeth at Pleasanton and who further identified a 7" Hensley-Esco style point wherein the size of the tongues was admitted to be as close to parallel as measurement could provide (R. 666, 353, Pl. Exh. 32).

## II.

### ISSUES

Two real issues are presented—these being more specific than those presented by appellant at pages 23 and 24 of its brief.

(1) Is the Baer patent valid over Mekeel patent No. 1,845,577?

(2) Is the patent still infringed by points with the slightly-changed tongues?

## III.

### SUMMARY OF ARGUMENT

Validity is determined by what would have been obvious to one of ordinary skill in the art at the time the invention was made. Even though various elements were in the art, no one saw any reason for combining them and, in fact, the history of the art argued against the combination for the purpose of making the first truly operational two-piece

tooth. Appellant's principal reference Mekeel not only lacks any indication of the importance of using these elements conjointly to make an operational two-piece tooth, but (1) lacks the elements and (2) introduces a locking mechanism that would lead the skilled art worker to assume that the Baer combination would not work.

Infringement is determined by the claims. Here he have a thrice-repeated admission that the initial versions (all four sizes) infringe so that the Court has only to look to the extent of the difference between the initial and second versions. By slightly reducing the size of the tongues (removing  $\frac{1}{8}$ " ) all that resulted was a slight loss in efficiency.

#### IV.

#### ARGUMENT

##### A. Invalidity Over Mekeel

##### 1. HOW EFFECTIVE MEKEEL WAS AS A PRIOR ART TEACHING

Hensley relies almost exclusively on the Mekeel Patent No. 1,845,677, to anticipate the Baer patent in suit. No other prior art patent is mentioned in the specification of errors relied upon. However, this was not the case at the trial as can be appreciated from the following excerpt from Judge Zirpoli's Opinion:

"Of the fifteen patents on two-piece teeth brought to the attention of the Court by the Defendant, only one came into commercial use prior to World War II, and this required time-consuming burning or battering to remove the replaceable point (R. 296)." (Clk. Tr. 486)

To show that the invention is "obvious", Hensley has cited 15 patents. When so many patents are resorted to, there is a bolstering of the presumption of validity. *Reynolds v. Whitin Mach. Works*, 167 F.2d 78, 83-84 (4th Cir., 1948):

"Defendant has cited 21 patents as basis for its contention that complainants' invention is lacking in novelty; and this in itself is evidence of the weakness of the contention . . . *Patents for useful inventions ought not be invalidated and held for naught because of such excursions into the boneyard of failures and abandoned experiments.*" (Emphasis supplied). Accord: *Minneapolis-Honeywell Reg. Co. v. Midwest Inst. Inc.*, 298 F.2d 36, 38 (7th Cir., 1961).

Mekeel was not even the two-piece tooth that was used with removal by "burning or battering". That "burned or battered" tooth was made according to Hosmer Patent No. 2,251,487 (R. 298). Nonetheless, the appellant would lead this Court to believe that the trial court erred in:

"14 . . . construing said Mekeel patent No. 1,845,677, such as to find that it was never utilized and that no known manufacture resulted from which its effectiveness could be evaluated."

There was no testimony as to any use of the Mekeel structure, only testimony that it was *not* used (R. 580).<sup>5</sup>

5. Appellant's contention about the use of Mekeel is at distinct variance to the representations made to Judge Sweigert during the hearing on the Motion for Summary Judgment (pages 26, 31-32):

"The Court: Have you got exemplars of these?

Mr. Herbert: You mean physical—?

The Court: Yes.

Mr. Herbert: No, your Honor, I do not have. I do not know that Mekeel has ever actually constructed these.

\* \* \*

The Court: Have you got anything except drawings to show Mekeel?

Mr. Herbert: No, your Honor, I do not. The drawings, the very patent itself which is before the Court is Exhibit C.

The Court: There is no embodiment of Mekeel, Mr. Herbert?

Mr. Herbert: No, your Honor, not that we know of. Mekeel was a private individual. According to his patent, he didn't assign it to any corporation or anything and this was quite some time ago, in 1932 this patent was issued."



The fact of use or non-use of a patent has a distinct bearing on what the prior art was. *Artmoore Co. v. Dayless Mfg. Co.*, 208 F.2d 1, 4 (7th Cir. 1953):

"It is unrealistic to reason that Rogers did nothing more than might be expected of a skilled art mechanic, when neither the owner of such prior art patents nor any member of the public after their expiration discovered their teachings were worth reducing to practice. Especially this is true in view of the fact that the field was wide open and that Rogers was the first to disclose a sponge-rubber mop with a wringing attachment, which was placed in manufacture and on the market. The wide acclaim with which it was received by housewives is proof of its utility and it leaves some indication of its novelty. While those of the prior art disclosed without result, Rogers reduced his disclosure to practice, and with success."

Mekeel is not the type of reference Hensley would have it be. Here it should be appreciated that defendant's burden of showing invalidity is through a prior art which:

"... was at the time adopted or followed, to an extent sufficient to create a well understood, if not an established practice, capable at any time of being resorted to, and not something incidental, indefinite and fugitive, which is hunted up and brought forward simply for the purpose of defeating the patent . . . *Cantrell v. Wallick*, 117 U.S. 689, 695, 6 S.Ct. 970, 29 L.Ed. 1017." *Kraft Foods Co. v. Walther Dairy Products*, 118 F. Supp. 1, 15 (W.D. Wis., 1954).

## 2. WHAT MEKEEL DOES SHOW — GENERALLY

Mekeel is alleged to show the three elements in the Baer patented point which co-act to stabilize the tooth against pin deformation. These elements are the relatively heavy spike portion, the rearwardly-extending tongues, and the shape of the point sockets so as to provide a discrete

spacing between certain sections of the point and adapter. These are present in a non-reversible type point—one that cannot be reversed top for bottom.

The first thing that is lacking in Mekeel is the relatively heavy spike portion. In Baer, the spike portion is clearly indicated at 43 (Clk. Tr. 501-02). The Baer point has its topside considerably heavier than the bottom side and this necessarily results in an asymmetrical point. One consequence of this is that the point cannot be reversed—the top placed on the bottom. This fact was found by the trial court (Clk. Tr. 494).<sup>6</sup>

Mekeel has to do with a reversible type point—one inherently incapable of achieving Baer's stabilization. So right at the outset, Mekeel is in a different category from Baer—making it less than obvious to solve a problem using Mekeel as a starting point. The clearest indication of what Mekeel taught is in Mekeel's own writing. The first statement in the Mekeel patent (Def. Exh. BB) reads:

“This invention relates to improvements in a digging tooth and more particularly to a reversible dipper tooth . . .”

It should be appreciated that a tooth cannot be reversible unless it is symmetrical. The file history (Def. Exh. BB-1) shows that Mekeel considered his invention to relate to a reversible tooth and during the testimony of the only witness of appellant who testified on this matter, the Court stated:

“I just notice that it makes some observation that it was pointed out this applicant was the first one to conceive and adopt advantages of the digger tooth, specifically reversible tooth.” (R. 500).

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6. Judge Sweigert came to the same conclusion at page 115 in speaking of the Baer construction vs. Mekeel:

“[H]e has this relatively heavy spiked section which does not appear in his patent, it doesn't appear in Mekeel . . .”

The witness on behalf of appellant who interpreted this reference was Dirks B. Foster, a patent lawyer. It was well after the Baer invention that Mr. Foster even knew about excavating teeth and even then did not know the difference between a single-piece and a two-piece tooth (R. 533). Foster was taken out to the Kaiser operation at Pleasanton—which was the only time he saw excavating teeth of the type involved. Mr. Foster thus could not be considered the worker of even ordinary skill in the art and thus is incompetent to construe the patent specification. *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 437 (1901):

“The specification of the patent is not addressed to lawyers, or even to the public generally, but to the manufacturers of steel . . .”

Hensley's own patent was brought to the attention of the Court. This patent stated that the point was reversible, but the picturization gave the distinct impression of being asymmetrical (R. 550). Appellant's witness Foster admitted that patent drawings were not exact picturizations and could not be relied upon to teach exact structure (R. 549).<sup>7</sup> It is well established that patent drawings are not mechanical drawings. *Gold v. Gold*, 34 App. D.C. 152, 1910 C.D. 314 (C.C.P.A. 1909); *Application of Nash*, 230 F.2d 428 (C.C. P.A. 1956).

### 3. HOW THE PRIOR ART IS TO BE INTERPRETED

Before continuing the discussion of the elements lacking in Mekeel, it should be appreciated that what appellant is doing here is seeking to find specific counterparts in the prior art (as at pages 46 and 48 of its brief) without regard

7. Thus, there is no error by the Court in:

“10 . . . construing said Mekeel Patent No. 1,845,677 to find the point described therein as symmetrical.”



to the rule laid down in the controlling statute. Hensley pays lip-service to the statute, 35 U.S.C. 103, by quoting the same but ignores its imperative:

“If the differences between the subject matter sought to be patented and the prior art are such that the subject matter *as a whole* would have been obvious . . .” (Emphasis supplied)

This has been the approach followed by this Court, *Radiator Specialty Co. v. Micek*, 327 F.2d 554, 555 (1964):

“We have traced through all of the prior art patents first placed in evidence by the parties and do not find Micek’s patent anticipated by any of them. The presumption of validity, to us, remains unimpaired. *Broken up into little parts, there is nothing new about any feature, but it is the combination of many old elements that has created something new* (for the moment at least), beyond the ordinary mechanic’s skill.” (Emphasis supplied)

This is well established law, the Supreme Court of the United States saying the same thing in 1878 in one of the cases relied upon by Hensley at pages 51 and 55 of its brief. For example, we read in *Bates v. Coe*, 98 U.S. 31, 49 (1878):

“Where the thing patented is an entirety, consisting of a single device or combination of old elements, incapable of division or separate use, the respondent cannot escape the charge of infringement by alleging or proving that part of the entire thing is found in one prior patent or printed publication or machine, still another part in another prior exhibit, and still another part in a third one, and from the three or any greater number of such exhibits, draw the conclusion that the patentee is not the original and first inventor of the patented improvement.”

However, even before viewing the subject matter as a whole—*i.e.*, what the patentee did to have the elements cooperate (which Hensley cannot afford to do)—there must be the investigation of the prior art to determine what was the level of obviousness to the ordinary skilled worker. This is seen in the factual approach set down at the beginning of this brief and conforms to the procedure recently outlined by the Supreme Court in *Graham v. John Deere Co.*, ..... U.S. ...., 15 L.ed. 2d 545, 556 (1966):

“Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or unobviousness of the subject matter is to be determined.”

Some assistance in making this determination can be obtained from the facts of *Graham* although the Court pointed out, ..... U.S. ...., 15 L.ed. 2d 545, 549, 556 (1966):

“Manifestly, the validity of each of these patents turns on the facts . . . What is obvious is not a question upon which there is likely to be uniformity of thought in every factual context.”

The Graham patent had to do with a plow so that there is some familial relationship to the excavating tooth we have here. Graham's contribution was a vibrating plow, although he had patented one just three years before. The only change Graham made was to reverse the shank and hinge plate of his earlier vibrating plow. The interchange of parts was held obvious—so that the second Graham patent was invalid.

What Baer did was not the reversal of parts—although appellant would mischaracterize the prior art to make it

seem so. Hensley has urged that everything in Baer is found in Mekeel, except the rearwardly-extending tongues. In particular, Hensley would have Mekeel equipped with the Baer spike portion—notwithstanding the exact opposite showing in the patent.

Hensley has recognized this at page 46 of its brief having to rely, among others, on the prior art reference of Hosmer (Def. Exh. S). With Hosmer, who has the spike portion, there is complete capitulation to the thinking that it was too risky to have an easily-removable point. This was discussed by the witness, Bremner, insofar as removability is concerned, as follows:

“[Removed by] brute strength or else with a welding torch. When I say brute strength, that would be the sledge hammer and chisel.” (R. 296)

This type of negative teaching corresponds to that in *United States v. Adams*, ..... U.S. ...., 15 L.ed. 2d 572, 580 (1966):

“We do say, however, that known disadvantages in old devices which would naturally discourage the search for new inventions may be taken into account in determining unobviousness.”<sup>8</sup>

In Baer, as in *Adams*, the individual co-acting elements were known to the prior art: ..... U.S. ...., 15 L.ed. 2d 572, 580 (1966):

“Despite the fact that each of the elements of the Adams’ battery was well known in the prior art, to combine them together as did Adams requires that a person reasonably skilled in the prior art must ignore that (1) batteries which continue to operate on an open circuit and which heated in normal use were not practical; and (2) water-activated batteries were suc-

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8. In *Adams*, which was a companion to *Graham*, the Supreme Court found the patent valid.

cessful only when combined with electrolytes detrimental to the use of magnesium. These long-accepted factors, when taken together would, we believe, deter any investigation into such a combination as is used by Adams."

In *Adams*, as in *Baer*, there was an inoperative reference. *United States v. Adams*, ..... U.S. ...., 15 L.ed. 2d 572, 579-580 (1966):

"An inoperable invention or one which fails to achieve its intended result does not negative novelty. *Smith v. Snow*, 294 U.S. 1, 17 (1935)."

Mekeel taught nothing to the excavating art. It was admitted unqualifiedly that nothing ever came of Mekeel and the reason for this was cogently explained by the witness Eyolfson—the basic split-tenon construction precluded the tongues from ever functioning (R. 630).<sup>9</sup>

#### 4. WHAT MEKEEL SHOWS — SPECIFICALLY

The spike portion which results from the asymmetrical construction in *Baer*, is significant in providing a teeter-totter-type action (R. 198, 199) which is impossible in

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9. "While the Mekeel Patent was never utilized, and no known manufacture resulted from which its effectiveness could be evaluated, there is serious doubt that a functional operation of Mekeel would provide the desired stabilizing effect. Mr. Eyolfson testified:

'The Court: In other words, you tell me there is no stabilizing effect there.

The Witness: That's right, and what's even more important is that once the thing moves forward in any degree, it could not return because the thing would seize tremendously . . .'" (R. 630).

"The basic teaching of Mekeel is entirely different from that of *Baer*. Mekeel does not rely on tongues for additional stabilization, since a rigid lock is brought about by the expanded tenon which provides the connection between the point and the adapter. This Mekeel contribution is carefully specified in each of the Mekeel claims." (Clk. Tr. 494-5).

Mekeel which lacks the relatively heavy top spike portion. What Mekeel shows is a top and bottom that are the same. (R. 541, 626).<sup>10</sup>

The main thrust of Hensley's brief is that Mekeel is pertinent since there are tongues. There is no doubt that the tongues extend the wrong way and this in itself prevented the Mekeel patent from being an effective reference. Even the witness Foster admitted:

"There is probably a difference between the tongues extending rearwardly from the point and extending forwardly from the adapter, but it is a matter of degree and I can't tell how much a degree." (R. 480).

Apart from that, the provision of recesses, *i.e.*, notches in the point, materially weakens the point (R. 288, 289) so that some other means must be provided to insure a proper support. This was in the form of the split-tenon construction in Mekeel, and the very action in doing this would discourage one skilled in the art from utilizing the superfluous tongue and recess construction in Mekeel. Mekeel admittedly does not show what the patent claims. In fact, it goes the other way. This means that a disregard of the essential teaching and a modification is needed. When modification is needed, the reference cannot qualify as an anticipation—as declared by the Supreme Court in *Topliff v. Topliff*, 145 U.S. 156, 161 (1892):

"It is not sufficient to constitute an anticipation that the device relied upon might, by modification, be made to accomplish the function performed by the patent in question, if it were not designed by its maker, nor

10. The lack of this element and anything to provide its equivalent action renders the reference ineffective so there was no error on the part of the Court in:

"11 . . . construing said Mekeel patent No. 1,845,677, so as to find that the point described therein does not provide a heavy upper spike portion."



adapted, nor actually used, for the performance of such function.”<sup>11</sup>

Thirdly, the spacing between the point and adapter specified by Baer is not objectionable as appellant would have it in its specification of error 12. The claims bring out that the spacing is developed by the dimensions and arrangement of the walls which define the socket of the point. These walls are an integral part of the point and therefore the spacing resulting therefrom is an element properly placed in a claim directed to the point. *Ex parte Crigler*, 125 U.S.P.Q. 448 (Patent Office Board of Appeals, 1959).<sup>12</sup>

In contrast to this, the teaching in Mekeel was that there should be no spacing as can be clearly seen from the Mekeel patent itself (Def. Exh. BB, page 2, lines 69-73) :

“In this case, 14<sup>a</sup> indicates the tenon formed on the No. 16<sup>a</sup> of the base 12<sup>a</sup>. 18<sup>a</sup> indicates the shoulder on the nose, which is adapted for engagement with the base of the point 13<sup>a</sup> when the points are assembled.”<sup>13</sup>

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11. Therefore, there was no error on the part of the Court in: “9 . . . construing said Mekeel patent No. 1,845,677, and said Baer patent No. 2,483,032, such as to find that the tongues on the adapter of said Mekeel patent are not a true equivalent to the tongues on the point which fit into the recesses of the adapter of said Baer patent.”

12. In *Crigler* the Board found the expression “dimensioned so as to be attached by adhesion to continuous and spaced ear surfaces” to be a structural one and therefore proper in a claim to a unitary element that was used in combination with another. Thus, there is no merit in the contention that the Court erred in: “12 . . . holding that the features of the said Baer patent No. 2,483,032 as expressed in claims 8 and 9 directed to a point only, include ‘spacing between the point and adapter.’”

13. This recitation positively requires contact between the point and adapter so that there was no error on the part of the Court in: “13 . . . finding that the tooth of said Mekeel patent No. 1,845,677, does not include spacing between the point and the adapter.”

As a logical consequence of the foregoing, it is clear that Mekeel not only lacks one element but all three elements specifically found by the Court to be present in the Baer patent—the heavy spike top, the rearwardly-extending tongues, and the spacing developed by the arrangement of the walls defining the socket. Hence, there is no error on the part of the Court in:

“15 . . . construing the prior art patents, including said Mekeel patent No. 1,845,677, such as to find that each has ‘less than the full combination of elements specified in either claims 8 or 9.’ ”

Where the parts are old but co-act to give a new result, patentable invention is present. *Faulkner v. Gibbs*, 338 U.S. 267, 268 (1949). This case is of particular interest because it affirmed the holding of validity and infringement found by the Court of Appeals for the Ninth Circuit, 170 F.2d 34 (1948). The Supreme Court, in reviewing the expert testimony considered by the Court of Appeals for the Ninth Circuit, stated:

“In the instant case, the patent has been sustained because of the fact of combination rather than the novelty of any particular element.

“After the suit in this cause was initiated in the District Court, petitioner modified his device. The courts below held that this modification was insubstantial and did not place petitioner outside the scope of respondent’s patent.”

Appellant is unable to support its 17th specification of error, namely:

“17 . . . the Court erred in basing its holding of validity of claims 8 and 9 in said Baer patent No. 2,483,032, upon a comparison of the entire tooth structure of said Mekeel patent No. 1,845,677, rather than to the

structure of the point alone to which claims 8 and 9 are directed.”

since it was clear that the Court went into each of the elements of the claims and each feature in the Mekeel point specifically. The Court went even further, in considering in detail the mode of operation of Mekeel to see whether the absent elements had any equivalent counterparts. Thus, what Hensley is condemning was a thorough investigation of the prior art so as to meet the requirements of the statute, 35 U.S.C. 103, as recently interpreted by the Supreme Court, *Graham v. John Deere Co.*, ..... U.S. ...., 15 L.ed. 2d 545 (1966), in determining what the content of the prior art was and what was the average skill. Without knowing the meaning of an element—as by its intended mode of operation—these determinations could not be made. For example, Mekeel does not rely on tongues for additional stabilization, since a completely rigid lock is brought about by the expanded tenon. This was Mekeel’s contribution to the art, and it cannot be disregarded in an attempt to find a semblance of anticipation for the purpose of invalidating the Baer patent. *Ex parte Vang*, 72 U.S.P.Q. 185 (Patent Office Board of Appeals 1947); *Ex parte Kniel et al*, 57 U.S.P.Q. 463 (Patent Office Board of Appeals 1943).

Hensley apparently placed his full reliance upon Mekeel (Def. Exh. BB) so as to fit into the classical pattern of cases where the presumption of validity is not conclusive because of a later-found and better reference. However, appellant compromises itself in this approach by the stand taken at page 47 of its brief wherein reliance is placed on a second Mekeel patent (Def. Exh. QQ). If the second patent was so good, why was it not used as the basic reference? On the other hand, if the first patent, the one



relied upon, was so good, why did references have to be made to the second patent—if not to remedy an inadequacy?

Appellant presents a most interesting specification of error in the form of No. 16:

“16. The Court erred basing its holding of validity of claims 8 and 9 of said Baer patent No. 2,483,032, upon a comparison of the prior art with structures manufactured by Plaintiff rather than with the structure defined by said claims 8 and 9.”

As appellee understands this, it is a contention that the Esco commercial construction does not come within the definition of claims 8 and 9. However, Hensley admitted in the pre-trial order (which was drawn up on stipulation), and before Judges Sweigert and Zirpoli in open court that the points it copied from Esco's commercial construction infringed claims 8 and 9. It is difficult to see that if the copies come under the claims, why do not the originals?

This is merely three-step logic:

- (1) The original Hensley points infringed the patent
- (2) The Hensley original points were copies of the Esco commercial points
- (3) Therefore, the Esco points infringed, *i.e.*, come under the patent.

In connection with validity, there remains for consideration only specifications of error Nos. 1, 8 and 18. These are Conclusions of Law challenging in effect the validity of the patent and having no reference to specific findings.

Considering now the Argument portion of appellant's brief, it is seen that insofar as validity is concerned, the major emphasis is on the fact that Mekeel was not considered by the Patent Office. This is stretching for a point

when none is there. The Patent Office did consider Van Buskirk Patent No. 1,925,420 (Def. Exh. Q) which is more pertinent than Mekeel in the fact that it showed rearwardly-extending tongues. Further, Van Buskirk employed the same sliding fit employed by Baer and did not resort to the split-tenon construction of Mekeel which precludes any secondary stabilization by the tongues. The inference under these circumstances is that the Patent Office Examiner considered Mekeel but chose to cite more relevant references. *Elgen Mfg. Corp. v. Grant Wilson, Inc.*, 285 F.2d 476, 479 (7th Cir. 1961):

“The Balfe, Bosley and Cody patents were in the same class and subclass in the Patent Office in which Goldsmith Patent No. 2,825,384 was officially classified. The examiner had ready access to this art. The first search which an examiner makes is in the class and subclass in which the subject matter claimed belong. We must conclude that the examiner reviewed these patents and discarded them.”

In the particular case at hand, the same Examiner, W. C. Bishop, handled both the Mekeel and Baer applications (R. 539).

Acknowledgedly, there was a change, and for that matter, a whole series of changes and a difference in approach between Mekeel and Baer. This brings the case in question squarely within the ruling of the Supreme Court of the United States in *Washburn & Moen Mfg. Co. v. Beat 'Em All Barbed Wire Co.*, 143 U.S. 275, 282 (1892), where the Court said that even though the difference between the prior art and the patent was slight, this difference turned failure to success and was responsible—in the case of barbed wire—for protecting the western plains. The Court summarized the matter as follows:

“Under such circumstances, courts have not been reluctant to sustain a patent to the man who has taken the final step which has turned a failure into a success. In the law of patents, *it is the last step that wins.*” (Emphasis supplied)

Further, the courts have said over and over again that the imitation of the thing patented is conclusive evidence of what the defendant thinks of the patent and persuasive of what the rest of the world ought to think. *Filtex Corp. v. Amen Atiyeh*, 216 F.2d 443, 445 (9th Cir. 1954):

“... [W]e have the presumption arising from the imitation of the patented article by the manufacturers of the alleged infringing device. As to this, we agree that what was said by Judge Hough, speaking for the Court of Appeals for the Second Circuit in *Kurtz v. Belle Hat Lining Co.*, 280 Fed. 271, 281: ‘The imitation of a thing patented by a defendant, who denies invention, has often been regarded, perhaps especially in this Circuit, as conclusive evidence of what the defendant thinks of the patent and persuasive of what the rest of the world ought to think.’”

## **B. Infringement**

### **1. IMPLIED ADMISSION OF INFRINGEMENT**

All of Hensley’s argument on non-infringement should be read with the following admissions in mind:

- (1) The initial 109 points were admitted infringements; and
- (2) There was no change in going from the first to the second versions except as to taking 1/8" of metal off the tongues.

Tongues are provided as part of the casting, which is not a precision element. Hensley himself even admitted to a difficulty in measuring closer than 10° (R. 353). The

tongues are relatively short so measurements can be twisted to suit any purpose. The correct approach therefore is to see what the tongues do—especially in view of the fact that Hensley had no reason for putting them there. (Pl. Exh. 14, page 47). The shape of the tongues was not critical, just a matter of “intuition” (Pl. Exh. 17, page 23):

“Q. What dictated the shape that you changed to, that seen in Exhibit 3 [Trial Exhibit 5]?

A. A notice from Electric Steel Foundry that—

Q. Maybe I am wrong. We have been through all that. What I meant was, how did you select that particular shape, the shape that is seen on Exhibit 3 [Trial Exhibit 5], as contrasted to, say having, none at all?

A. Well, it was my own intuition on how to do it, that’s all.”

Hensley admitted to the fact that the tongues gave lateral support (R. 182). The diminution in tongues was only for the purpose of attempting to avoid infringement without any change in function (Pl. Exh. 14, pages 42-44):

“Q. Do you have any reports on the function of the rearwardly-extending tongues of the type seen in plaintiff’s Deposition Exhibit 2 [Trial Exhibit 4]?

A. Reports from where?

Q. I asked you the question whether you have any reports.

A. This is entirely outside of my own knowledge.

Q. Do you have any reports that you know of?

A. No, I don’t know of any reports.

Q. Then why did you ask the question ‘from where’?

A. Well, whether it was from the field or from the laboratory, or from—

Q. Well, do you have any from the field?

A. No, I have no reports from the field on the point in question.

Q. How about from the laboratory?

A. Yes, I have reports from the laboratory on the points in question.

Q. Are those written reports?

A. They are.

Q. They are in your files?

A. They are.

Q. Any other reports on the function of the rearwardly-extending tongues or ears of the type seen in Plaintiff's Deposition Exhibit 2?

\* \* \*

A. No, no reports on that.

Q. Well, then, going back to where you were talking about these lab reports, were you talking about the square-shaped tongues or the triangular-shaped tongues?

A. The lab reports we were talking were of the metallurgy.

Q. Well, what is the function of those ears on Plaintiff's Deposition Exhibit 3 [Trial Exhibit 5]?

A. They are shark fins, splitter bars that brush the aggregate away from the web of the point, of the box section.

Q. But why do they extend beyond the rear face of the point?

A. That's just the way we happen to make them."

Hensley admitted that a dynamic test was the correct approach (R. 449). So the question is whether shaving off  $\frac{1}{8}$ " from the tongues of the admittedly infringing points makes them non-infringing. Added to this is the fact that the tongues become encrusted—that hard, earth layers build up when the points are in operation (R. 611). This led Judge Zirpoli to find that the change was only a "colorable" one—in accordance with the established law: *Admiral Corp. v. Zenith Radio Corp.*, 296 F.2d 708, 717 (10th Cir. 1961), where the patent was held valid and infringed:

"One point remains to be considered. Admiral urges that the 1960 model remote control transmitter used in the Son-R does not infringe on patent No. 956 relat-



ing to the mounting of the resonator. Non-infringement is claimed on the ground that the 1960 mounting used a circumferential groove rather than diametrically opposed flatbottomed grooves with a resultant two-point suspension rather than the four-point as employed in the preferred 956 design. The trial court held that this was an imperfect utilization of the 956 patent with the hopes of evading infringement while enjoying the major benefits of the teaching of 956. A device may infringe a patent even when it does not utilize fully the best mode of practicing the invention. We have said that impairment of function and lessening of results in degree only does not avoid infringement."

The infringer in the *Admiral* case attempted to avoid the patent by using a less stable mounting—a two-point suspension rather than a four-point suspension. Here Hensley is attempting to avoid infringement by foregoing certain initial stages of stabilization in the smaller-size points where stabilization may not be needed as often.

Hensley makes much out of the fact that the Court did not specifically *differentiate* between the four-inch, five-inch, six-inch and seven-inch points insofar as the character of the tongues is concerned.<sup>14</sup>

This is interesting since it carries the implied admission that some of the points infringe. Hensley raises no question as to the six-inch point (see Appellant's brief, page 54) and does not seriously question the fact of infringement by the seven-inch size (see Appellant's brief, page 52). Really, the only complaint is that Eseo did not run its guillotine

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14. "3. The Court erred in holding claims 8 and 9 of said Baer patent No. 2,483,032, generally infringed by Defendant's points without *differentiation* as to the various models of points."

"5. The Court erred in holding that the tongues on the Defendant's points in general serve a stabilization purpose without *differentiation* as to the various models of points."

tests on all of the points. This disregards the fact that tests are nothing without testimony—live testimony being the best evidence. The testimony clearly supports the finding that all sizes infringed, particularly the four-inch and five-inch sizes. First, the witness Wilcox based his testimony of infringement on the four-inch size (Plaintiff's Exhibit 5, R. 208-211). Also, Clyde C. Hensley admitted "dinging" (i.e., scarring contact) of the tongues during his tests (R. 329). Eyolfson found "pinging" of the tongues on the four-inch size (R. 624). On the five-inch size, the witness Graf found contact of the tongues with the adapter recesses (R. 588-89). When Judge Zirpoli saw the seven-inch size, he said:

"If you are going to rely exclusively on what I see, my conclusion at the moment would have to be that they appear to be substantially parallel."

The fact of the matter is that whittling away  $\frac{1}{8}$ " from the smaller size makes the resultant tongue *look smaller*—but this cannot do away with the fact that there is still a tongue present to function when needed in a heavy-stress condition. Hensley has admitted infringement on the first version and only changed the tongues by making a  $\frac{1}{8}$ " clearance relative to the recesses. The basic elements were all there so that there is no merit in Specification of Error No. 4.<sup>15</sup>

The small change in structure with no change in function rules out Specification of Error No. 2. *George W. Ashlock Co. v. Atlas Pacific Engr. Co.*, 225 F. Supp. 205 (N.D. Cal., 1963).<sup>16</sup>

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15. "4. The Court erred in construing claims 8 and 9 of said Baer patent No. 2,483,032, such as to find the basic features thereof in Defendant's points."

16. "The Court erred in holding that 'the defendant's change in design and construction of its new points is insufficient to avoid its previously admitted infringement of these two claims' and was 'at most a colorable change.'"

## 2. TECHNICAL AVOIDANCE OF THE CLAIM

Hensley has asked this Court to construe the claims narrowly—in accordance with certain statements read from the patent. More particularly, Hensley wants this Court to vary the express language of the claims to call for a “snug” fit between the tongues and recesses and secondly, that the tongue sides are “parallel”, notwithstanding the fact that the claims read “substantially parallel . . . to fit . . .”. Hensley would have the Court disregard the clear statement set down by the Supreme Court in *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 607 (1949) :

“If the accused matter falls clearly within the claim, infringement is made out, and that is the end of it.”

In the same case and at the same time, the Supreme Court spoke out forthrightly against the type of technical approach used by the Appellant here, saying :

“The courts have also recognized that to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing. Such a limitation would leave room for—indeed encourage—the unscrupulous copyist to make unimportant and insubstantial changes and substitutions in the patent which, though adding nothing, would be enough to take the copied matter outside the claim, and hence outside the reach of law. One who seeks to pirate an invention, like one who seeks to pirate a copyrighted book or play, may be expected to introduce minor variations to conceal and shelter the piracy. Outright and forthright duplication is a dull and very rare type of infringement. To prohibit no other would place the inventor at the mercy of verbalism and would be subordinating substance to form. It would deprive him of the benefit of his invention and would foster concealment rather

than disclosure of inventions, which is one of the primary purposes of the patent system."

The courts have repeatedly held that where the patent represents a distinct step forward, liberal interpretation of the patent is indicated, *i.e.*, there is to be no mechanistic interpretation of "substantially parallel . . . to fit . . .".

Chief Justice Taft stated in *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U.S. 45, 63 (1923):

"In administering the patent law, the court first looks into the art to find what the real merit of the alleged discovery is and whether it has advanced the art substantially. If it has done so, the court is liberal in its construction of the patent, to secure to the inventor the reward he deserves."<sup>17</sup>

Hensley is still trotting out its tired argument on file wrapper estoppel. This was specifically rejected first by Judge Sweigert and then by Judge Zirpoli. The fact of the matter is that there is no file wrapper estoppel since the claims from the outset specified that the tongues had substantially parallel side edges. All that was added during the course of prosecution of the patent was to make clear the fact that these tongues cooperated differently with the remaining elements of the tooth from those seen in the prior art.

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17. Thus the Court did not err:

"6 . . . in giving a broad interpretation of the term 'substantially parallel' as such term is used in claims 8 and 9 of said Baer patent No. 2,483,032, in order to find infringement thereof."

"7 . . . in failing to hold claims 8 and 9 of said Baer patent No. 2,483,032, are limited by statements made in the file wrapper of that patent and, as so limited, are not infringed."

### 3. COMMENTARY ON APPELLANT'S ARGUMENT ON INFRINGEMENT

Appellant places great reliance on the previous opinion of this Court in *D & H Electric Co. v. M. Stephens Mfg. Inc.*, 233, F.2d 879, 883-884 (1956). Hensley's brief contains references to this case and quotations therefrom on pages 58-60. The reliance is misplaced. In fact, the quotation given by appellant sets forth the distinction most clearly, *i.e.*,:

"Slight as this difference may be, it invokes an entirely different principle of operation." (233 F.2d 879 at 884)

Here, the Court was talking about the fact that the claims called for certain ribs to be at substantially 90° while the accused device had projections varying from 85° to 89°. The difference was that in having any departure from a right angle, the device operated as if it had screw threads. This is what the patentee had to forego in order to achieve a patent.

This is not the case with Baer. In Baer, the rearwardly-extending tongues from the outset were specified to have substantially parallel side edges. What the applicant did during the course of the prosecution of the application to achieve the patent was to specify what these tongues did. Hensley's tongues perform exactly the same function. There is not the entirely different principle of operation regarded as meaningful by this Court in the *D & H Electric* case. The identity of function of the Hensley tongues and those of the patent can be further appreciated from the contrivance resorted to by Hensley in order to justify its copying. Hensley started off with Chinese copies of the Esco rearwardly-extending tongues and in addition had some little wedges on the sides of the point (see particularly Plaintiff's Exhibit 12 reproduced at page 1 of the Appendix hereto). After being cautioned about infringement, the



tongues were tapered slightly and the "shark fin" extended rearwardly (see Plaintiff's Exhibit 13 at page 1 of the Appendix hereto). This was just a matter of taking metal from the top and bottom of the tongues and putting it on the side.

A case squarely in point is *Chicago Pneumatic Tool Co. v. Hughes Tool Co.*, 97 F.2d 945, 947 (10th Cir. 1938):

"The patent calls for long, narrow, chisel-shaped penetrating teeth, . . . The argument is that the teeth in the accused device are pyramidal, and that the sides of the rows are not parallel . . . and while the adjacent sides of the rows are not precisely parallel they are approximately and substantially so. The departures from the claims in respect to the change in form of the teeth are colorable and without change in principle. As such they do not avoid infringement."

The citation of *U. S. Slicing Machine Co. v. Wolf Sayer & Heller Inc.*, 243 Fed. 412 (N.D. Illinois 1917) is an attempt to create a proposition of law for which there is no support. Here appellant is talking (page 63 of the Brief) about the fact that the Hensley points had tongue engagement at 16,000 foot-pounds whereas the normal check test was 6,000 foot-pounds. First off, Hensley has misconstrued the test since the 6,000 foot-pounds is a proof test—a test not even approaching destruction or strong stress. This is a "minimal requirements" test. On the other hand, the tongues are provided to prevent premature failure under extraordinary stress conditions. It is even possible that a given tooth point may be used throughout its wear life without ever encountering such an extraordinary stress. This would be the possibility if the tooth point were used for digging sand. However, in anything but the softest environment, there is the possibility of "hooking" the tooth

point under a rock or ledge and with the power involved, there is the possibility of even tipping the machine because of the tremendous stresses involved (R. 200). This is an instantaneous affair and it is protection against such an untoward happening that is provided by the tongues.<sup>18</sup>

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18. All of this was graphically and orally demonstrated to the Court by films, testimony and exhibits. As such, the findings of the Court are bolstered even further than that provided by Rule 52 of the Federal Rules of Civil Procedure:

“To no type of case is this last clause more appropriately applicable than to the one before us, where the evidence is largely testimony of experts as to which the trial court may be enlightened by scientific demonstrations.” *Graver Tank & Mfg. Co., Inc. v. Linde Air Products*, 336 U.S. 271, 274 (1948).

Further, it is to be noted that the findings were embodied in an opinion. Some courts would regard this as an exceptional situation under Rule 52. For example, Chief Judge Major, speaking for the Court of Appeals for the Seventh Circuit said in *Consolidated Water Power and Paper Co. v. Kimberly-Clark Corp.*, 204 F.2d 573-74 (1953):

“With the knowledge thus acquired during a lengthy trial and from his personal observation of the processes in controversy, he did not at the conclusion merely indicate which party was to prevail, with a request for the submission of findings of fact and conclusions of law, as is oftentimes done by trial judges, particularly in patent suits. Instead, he prepared a lengthy opinion, embodying his findings and conclusions.”

Not only does the handling of this trial indicate that the findings of infringement were correct, but also those on validity. *Neff Instrument Corp. v. Cohu Electronics Inc.*, 298 F.2d 82, 87 (9th Cir. 1961):

“The presumption of a patent’s validity which arises from its issuance by the Patent Office, is strengthened by the finding of validity by the district court.”

**THE CONCLUSION**

The haunting question persists: IF THE REARWARDLY-EXTENDING TONGUES DO NOTHING, WHY DID HENSLEY KEEP THEM?

Respectfully submitted,

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**CERTIFICATE**

I certify that, in connection with the preparation of this Brief, I have examined Rules 18 and 19 of the United States Court of Appeals for the Ninth Circuit and that, in my opinion, the foregoing Brief is in full compliance with those rules.

DAVID VAN HOESEN

*Attorney for Appellee*

**(Appendix Follows)**









Appendix

No. 39806

P. P. T. Exhibit No. 12

Filed OCT 6 - 1964

James P. Welsh, Clerk

By J. P. Welsh  
Deputy Clerk



**ESCO TYPE**

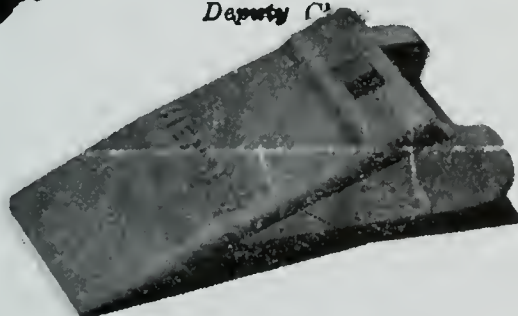
No. 39806

P. P. T. Exhibit No. 13

Filed OCT 6 - 1964

James P. Welsh, Clerk

By J. P. Welsh  
Deputy Clerk



**ESCO TYPE**

[474]

Filed—Sep-8 1965

Clerk, U. S. Dist. Court San Francisco

*In the United States District Court for the Northern  
District of California, Southern Division*

No. 39806

Esco Corporation,

Plaintiff,

vs.

Hensley Equipment Company, Inc.,

Defendant.

## MEMORANDUM OPINION AND ORDER

Esco Corporation, the plaintiff, is an Oregon corporation, located at Portland, Oregon. It also maintains a plant at Danville, Illinois. Esco's business includes, among other things, the manufacture and sale of expendable products for construction equipment, such as excavating teeth and replacement points for those teeth.

Hensley Equipment Company, Inc., the defendant, is a California corporation, located at San Leandro, California. Defendant is also engaged, among other things, in the manufacture and sale of excavating teeth and replacement points for those teeth. Defendant sells its products through various dealers in the United States, and among those dealers is one W. M. Hales Company, Inc., of Danville, Illinois, which latter company, in addition to being a dealer, is also an independent warehouse operator and operates a warehouse at Danville not only for the benefit [475] of defendant, but also for other manufacturers.

This suit was brought on United States Letters of Patent 2,483,032, hereinafter called the "Baer Patent", and under the Patent Laws of the United States (35 U.S.C. 271, 281; 28 U.S.C. 1338(a), 1400).

The subject matter of the Baer Patent is an excavating tooth. Excavating teeth are metal devices which fit on the front or digging edges of dippers, shovel buckets and the like and serve to aid in the penetration and breaking up of earth or rock in which such equipment is working. The particular type of teeth concerned in this suit are two-part excavating teeth, including an "adapter" portion and a wedge-shaped wear "point". The point is a separate, relatively small tip that fits on the adapter and provides the actual cutting edge of the overall tooth. The commercial value of such excavating teeth lies in the fact that the point can be easily fitted on to the adapter, maintained securely thereon during the heavy stresses encountered in field operations and yet readily releasable for replacement when worn down or when it otherwise becomes time to replace the point. The resultant savings in man hours and metal have been a boon to the heavy construction industry.

While excavating teeth of a two-part nature were known to the art as early as 1909 (Patent No. 915,809 issued to B. C. Thomas) and had had some limited commercial use in the late Thirties and early Forties, extensive commercial use of such two-part excavating teeth did not commence until about 1945 or shortly thereafter.

The patent in suit, the Baer Patent, of which only claims 5, 8 and 9 are at issue for decision by this Court, was granted on September 29, 1949 to Joseph Baer on an application filed in the United States Patent Office on June 6, [476] 1945. Prior to issuance, the application and all rights therein were assigned to Electric Steel Foundry Corpora-

tion, which by change of name became Esco Corporation, plaintiff in this suit. Plaintiff is now, and at all times during the commission of the acts complained of by plaintiff has been, the owner of the entire right, title and interest in and to the Baer Patent, including the right to sue for patent infringement.

In the year 1947 defendant started making its own two-part excavating teeth and in the year 1948 it started making replacement points for the teeth of other manufacturers of two-part teeth. These included the Caterpillar type, for which it paid a royalty, H & L type, the patent on which had expired, and Ateco type and Saber type, which latter two were not patented. About 1960 defendant entered into the manufacture of the Esco (Baer) type replacement points. For this purpose defendant purchased five Esco two-part teeth (points and adapters) in order that it might "capture the dimensions" that are necessary to fit its manufactured Esco type points to the Esco adapters. Defendant, at the time of the purchase of these Esco points and adapters, knew that these pieces carried patent numbers on them. After the defendant had manufactured 109 Hensley-Esco type wear points, Clyde Hensley, the President of defendant corporation, received a visit from Hal Robb of the plaintiff corporation, who said to him, "Oh, you have ears that fit snugly into the recesses of our adapters. You are infringing our patent." (R. 181) Defendant immediately stopped production and made certain changes in the pattern of its Hensley-Esco type points in order to keep the ears (more often described as tongues) of the wear points from fitting snugly into the recesses of the Esco adapter by changing the formation of [477] the tongues in such manner as to provide "an eighth of an inch clearance and a hardened piece of steel." (R. 181). As the witness Clyde



Hensley said, "I didn't want to infringe the patent, so I immediately changed so that it didn't interlock." (R. 182). He further testified that he "just changed the shape of the tongues" and made no testing other than to try the new wear points on the adapters to see that there was an eighth of an inch clearance.

It is admitted by the defendant that *if the Baer Patent is valid*, the first 109 points manufactured by defendant infringe claims 8 and 9 of that patent. This admission of infringement of claims 8 and 9 appears from the record in several places. In the pretrial order, approved as to form and content by the defendant, it is provided as follows: "6. The admitted and undisputed facts in the case include: . . . (i) That the defendant has manufactured a small number of points as defined in Claims 8 and 9 of the patent in suit, and that these points infringe said claims if the claims are valid." At the hearing on motion of summary judgment, counsel for defendant admitted that this small number of points infringe the Baer Patent when he said, "We admit that they (referring to these 109 points) would infringe and we also admit that the defendant would be liable for such infringement if the Baer patent were valid.", and during the course of the trial counsel again admitted that these points infringed. In answer to the Court's question, "You have admitted that the first teeth would infringe if a patent exists", counsel for defendant replied, "Yes, Your Honor, we did." (R. 23).

As to the defendant's subsequently manufactured wear points, plaintiff complains (1) that the manufacture and sale of such wear points *directly infringe claims 8 and 9* of [478] the Baer Patent and (2) that because of defendant's relationship with W. M. Hales Company, Inc. of Danville, Illinois, the *defendant infringed claim 5* of the

Baer Patent *by inducement* in that defendant induced W. M. Hales to purchase new adapters from plaintiff and new replacement points from defendant for the purpose of assembling the two together for sale by W. M. Hales as a complete unit.

Before turning to claims 8 and 9, which relate generally to the wear point itself and which form the heart of this case, the Court finds that the plaintiff's allegation that defendant infringed claim 5 (which relates to the overall combination of the wear point and the adapter of the Baer Patent) *by inducement* is without substance. The induced party is supposedly W. H. Hales Company of Danville, Illinois; however, there is not the slightest bit of evidence from which one could reasonably conclude that any inducement occurred. Plaintiff appears to be attempting to show an agency relationship between defendant and W. H. Hales Company, but the evidence will not sustain plaintiff's contention:

"Mr. Herbert: Q. Mr. Hensley, do you know Mr. Herbert Hales?

"A. Yes, I do.

"Q. What is your relationship with him?

"A. He is one of my warehouse outlets in Danville, Illinois, and also a dealer for Hensley Products within his trading area.

"Q. Would you explain your relationship, or rather, what your business arrangement is with Mr. Hales with respect to warehousing and with respect to his dealership?

[479] "A. Well, we have an arrangement with W. M. Hales Company whereby we pay him a fee for stocking our merchandise and reshipping to other dealers on the eastern seaboard, for which we pay him a warehousing fee and three per cent handling charge for products reshipped for us. Then the other phase of his business as far as we are concerned, he draws

from our warehouse and sells direct to the contractors in his trading area, immediately around Danville, Illinois.

"Q. Do other of your dealers draw from that warehouse?

"A. They do.

"Q. You mentioned W. M. Hales Company. How is this related to—

"A. W. M. Hales Company—

"The Court: Well, let's start first with, has this always been the relationship?

"The Witness: Yes, it has been, since the—

"The Court: It hasn't varied at any time?

"The Witness: No, sir.

"The Court: All right.

"The Witness: Well, yes, sir, I might qualify that, because over the years, prior to him becoming a warehousing agent, from time to time he bought other products or products in the Hensley line, on an occasional basis, but not on a regular basis.

"The Court: All right.

"Mr. Herbert: Q. And what did you say was W. M. Hales Company?

[480] "A. W. M. Hales is the company of which Herb Hales is the General Manager and President—I assume, although I am not sure he is President.

"Q. But Herbert Hales is connected with W. M. Hales?

"A. He is considered the owner of W. M. Hales Company, yes.

"Q. Have you instructed W. M. Hales Company or Herbert Hales or any one with that company how to sell your points?

"A. No, sir, I have not.

"Q. Have you ever instructed or suggested that your points be sold on new Elseo adapters?

"A. No, sir, I have not.

"The Court: Did you ever become aware of that fact?

"The Witness: I never became aware of that fact, no, sir.

"The Court: Until when?

"The Witness: Until recently when it was testified here by someone.

"The Court: Well, were you aware of it at the time the complaint was filed?

"The Witness: Just generally. But specifically, I didn't—I wasn't aware of the circumstances, no.

"Mr. Herbert: Your Honor, I think at this time I might indicate that the time the complaint was originally filed, induced infringement was not charged. It was charged after the depositions in Danville.

"The Court: All right.

[481] "Mr. Fallon: I think the record ought to be consulted before that statement is made.

"The Court: Well, I can consult the record. I have it here.

"Mr. Herbert: Q. Do you have any control over Mr. Hales' or W. M. Hales' action in their business as dealers or distributors?

"A. No, sir." (R. 356-359)

Applying the test suggested by plaintiff in its trial brief:

"But civil culpability need not stop with the dealer who does the final act of making, using or selling. The prohibition of the law, now codified in 271 (b), extends to those who induce that infringement. Of course inducement has connotations of active steps knowingly taken—knowingly at least in the sense of purposeful, intentional, as distinguished from accidental or inadvertent. But with that qualifying approach, the term is as broad as the range of actions by which one in fact causes, or urges, or encourages, or aids another to infringe a patent." *Fromberg, Inc. v. Thornhill*, 315 F. 2d 407, 411 (CA 5, 1963).

the Court finds no active steps knowingly taken by defendant for the purpose of causing, urging, encouraging or aiding another to infringe the Baer Patent. The fact that defendant is listed in the telephone directory as having, and the fact that it does have, a telephone in the Danville office of Hales and the fact that defendant puts out a price list showing that Hensley Equipment Company is located at Danville and ships out of Danville, in and of themselves do not and could not create an agency relationship. Defendant's relationship with W. H. Hales is that the Hales Company maintains an independent warehouse for defendant, for which he charges accepted warehousing fees. Defendant has never discussed with Hales how to sell Hensley points on new Esco adapters. In fact, the evidence discloses that Mr. Hensley, [482] the defendant's President, never even knew that Hales was selling Esco adapters and Hensley points as a unit until someone had testified to it during the course of the proceedings and after the filing of the complaint in the present action. Moreover, defendant does not now have and has never had any control over Hales in their business as dealers or distributors. Under the foregoing circumstances there could be no inducement and hence no infringement of Claim 5 by defendant. There is, therefore, no further need to consider Claim 5 of the Baer Patent and this Court does not now pass upon the validity of this claim. The Court merely finds that the defendant has not infringed Claim 5 of the Baer Patent.

Turning to Claims 8 and 9 of the Baer Patent, in reply to plaintiff's complaint that these claims have been infringed, defendant, in addition to denying any infringement, alleges that the Baer Patent is invalid and void on the grounds (1) that the subject matter of the Baer Patent was old when Baer made his design, and in fact, was well



known more than one year before Baer filed his patent application, and (2) that the Baer disclosure contained no more than a minor modification over other well known structure, which modification would have been obvious at the time invention was made to a person having ordinary skill in the art.

Defendant further alleges that plaintiff comes into Court with unclean hands, in that it has affixed, or caused to be affixed, to certain structures the number of the patent in suit, thereby falsely implying that those structures are patented.

The defendant, as appears above, has admitted that the first 109 points it manufactured infringe Claims 8 and 9 of [483] the Baer Patent. The Court, after considering the exhibits, laboratory tests, testimony and all other evidence in the case, is satisfied that, if claims 8 and 9 of the Baer Patent are valid, the defendant's change in design and construction of its new points is insufficient to avoid its previously admitted infringement of these two claims. The first manufacture by defendant of Hensley-Esco type points is exemplified in Exhibit 12 and the subsequently changed manufacture by defendant of Hensley-Esco type points is exemplified in Exhibit 13. When questioned about the differences in the manufacture of these two items, Mr. Hensley testified as follows:

"The Court: And you are familiar with the differences in the manufacture of 12 and the manufacture of 13?

"The Witness: I am, Your Honor.

"The Court: Would you tell us what those differences are?

"The Witness: In Exhibit 12 the ears were somewhat square in shape and in Exhibit 13 they were more of an extended sharkfin without parallel sides.

"The Court: Other than the ears, is there any difference in those two manufactures?"

"The Witness: No, sir, not any difference whatsoever." (R. 174)

This difference in the ears (or tongues) consisted of a change in the shape of the tongue (ear) so as to yield a one-eighth of an inch spacing in the recesses of the adapter and an extension of the fins (designated "sharkfin" [484] by the defendant) so as to make them coextensive with the changed tongues. In this fashion the horizontal dimension of the tongue was increased, while the vertical dimension was decreased. No tests or calculations were utilized, the change being merely Clyde C. Hensley's "intuition". While the sides of tongues on the smaller sized Hensley-Esco type points may or may not be said to be substantially parallel, the sides of the tongues on the larger, 7", sized Hensley-Esco type points appear to be as close to substantially parallel as measurement could provide (R. 666, 667). Furthermore, Clyde C. Hensley did not deem angle of the sides of the tongue of any significance to him (R. 354). The above described change is at most a colorable change, and as such it cannot avoid infringement. While the "sharkfin" structure on the outside of the tongue sides of the Hensley-Esco point may have some value for the purpose of throwing or sweeping away aggregate in a digging operation, the subsequent change in the Hensley-Esco tongue with an extension of the shark fin so as to make it coextensive with the tongue merely resulted in a change in appearance (R. 174), and in no way aided the operation of the shark fin, which leads to the question, if, as Clyde C. Hensley testified on deposition (his deposition of October 4, 1961, p. 49), there was no reason for having the rearwardly extending tongues, why did he keep them when he made the change?

The question is particularly important in the light of his statement that he "didn't want to infringe". The reasonable answer brought out in the laboratory tests of plaintiff's engineers, both eminently qualified, seems to be the stabilizing function of the rearwardly extending tongues. Both plaintiff and defendant offered laboratory tests to show [485] the stabilizing effect of the tongues on the Baer and the Hensley-Enesco type points. Of the two tests, the Court finds the plaintiff's guillotine test (a dynamic test) to be by far the more reliable and as close to normal severe operations as a test could come. The Hensley tests, which were designed by an employee who has a PH.D. degree in Electricity and Metallurgy (R. 376), but who was not present at the trial, were run by Clyde C. Hensley, whose competence as an engineer does not approach that of Eyolfson and Graf, who ran plaintiff's tests. Furthermore, the Hensley tests, which were in the main made on smaller sized points (where the additional stabilization effect has lesser importance), were variable and impossible to evaluate. The Hensley tests failed to place the load (stress) on the tip of the tongue where it should properly have been placed, in order to emulate stress applications found in field operations, while in plaintiff's tests the load was placed on the tip of the point and generally transversely thereto, thereby simulating heaviest field loading. In fact, in the Hensley tests the load was moved further and further away from the tip of the point as the size of the point increased, and no effort was made to test the larger 7" point. The plaintiff's tests showed that both Baer and Hensley-Enesco type points operate in the same manner, i.e., the inwardly extending tongues provide a stabilizing function in addition to the wedge faces and thereby protect the pin from deformation and make the point removal simple. Clyde H. Hensley ad-

mitted that although the one-eighth of an inch spacing in the recesses of the adapter remains unchanged, the tongues become larger as the Hensley-Esco type points become larger (R. 178), and that stabilization becomes more important as [486] size increases (R. 371). This may well account for defendant's attempt to avoid infringement by foregoing certain initial stages of stabilization in its smaller size points where added stabilization may not be needed as often. A somewhat less efficient operation does not avoid infringement. See *Admiral Corp. v. Zenith Radio Corp.*, 296 F.2d 708, 717.

As an appendix hereto the Court has attached copies of plaintiff's Exhibits 23A and 24A, drawings showing the basic features of Claims 8 and 9 of the Baer Patent *as they are found in the Hensley-Esco type points*.

The Court is satisfied that the tongues on the Hensley-Esco type point serve the above indicated stabilization purpose and that this is the very reason they were retained. It follows from the foregoing that, if valid, Claims 8 and 9 of the Baer Patent have been infringed by the manufacture and sale of Hensley-Esco type points and the Court so finds. See *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 617.

This now brings us to the basic issue before the Court: Are Claims 8 and 9 of the Baer Patent valid?

Of the fifteen patents on two-piece teeth brought to the attention of the Court by the defendant, only one came into commercial use prior to World War II, and this required time consuming burning or battering to remove the replaceable point (R. 296). The inventor of the excavating tooth of the patent in suit, Joseph Baer, was working on the problem of easily removable points on two-part teeth early in World War II and originated a construction wherein the

locking means was not stressed during field operations (R. 197, 201). [487] The Baer construction employed a wedge-shaped point fitting over the adapter nose, with a pin passing vertically through aligned openings in the point and nose. The pin was held in place by a rubber plug equipped with a steel insert. For drawings of the Baer Patent, see copies thereof, plaintiff's exhibit 2, included in the appendix hereto.

According to the patent, the nose of the adapter is wedge-shaped, having converging faces. The point has a rearwardly facing socket defined by similar wedge faces, so that the point can seat on the adapter nose. The upper portion of the point is relatively thick or heavy to constitute a spiked portion. Rearwardly of the point are provided integral tongues which fit into recesses provided on the adapter. The mating portions of the point and adapter are so arranged that the point can move rearwardly on the adapter as wear occurs on the seating bearing faces of the nose and socket. For this purpose spacing between the socket apex and nose is provided, as also is spacing between the rear ends of the recesses and the rearwardly extending tongues.

When the adapter has its rear or shank portion secured to the lip of a piece of excavating equipment, the tongues serve to stabilize the point against transverse stresses. This provides stabilization in addition to that provided by the wedge faces. In so doing, the tongues serve to protect the locking pin against deformation. Even under heavy stresses, the pin is merely used to oppose gravity to keep the point from falling off the adapter (R. 56, 102). Thus, there is no deforming stress applied to the pin which would make it difficult to remove when point replacement is necessary (R. 102).



[488] The spike portion of the point is normally stressed at its tip, and the type of stress that would tend to deform the pin is a transverse stress, i.e., one at right angles to the length of the spike portion. These transverse forces can reach upwards of 10,000-20,000 foot pounds (R. 54). When transverse forces of this order are applied to the tip of the spike portion, the spike portion acts as a cantilever to transfer the stress to the rear of the point, using the adapter nose as a fulcrum (R. 155, 199). The operation under destructive stresses applied transversely to the spike portion, the point, while deflecting, moves forwardly slightly, so that the tongues come into bearing engagement with the walls of the adapter recesses. The tongues fit within the adapter recesses with substantially parallel side edges, with a sliding fit in order to accommodate wear on the edge bearing surfaces (R. 213). Deflections of the order of one and one-half inches are not uncommon at the spike portion tip, which are transmitted in lever fashion by means of the heavy spike portion to the tongues so as to prevent deformation of the locking pins (R. 199).

These Baer-type excavating teeth enjoyed an immediate and widespread commercial success (R. 300). Licenses under the patent were taken out by such principal tooth manufacturers as American Steel Foundries, now Amsted Industries, the American Manganese Steel Company Division of American Brake Shoe Company, and Caterpillar Tractor Company (R. 215).

In its effort to overcome the presumption of validity that attaches to the Baer Patent and in support of its burden of proving invalidity, the defendant introduced in evidence fifteen patents on two-part teeth, but relied primarily upon the Mekeel Patent, copies of the drawings [489] of which (defendant's Exhibit BB) are included in the appendix

hereto. However, it would appear that teeth based upon the Mekeel Patent, the defendant's most pertinent overall reference against the Baer Patent, were never actually constructed and thus never put to any commercial use or test.

The basic difference in plaintiff's and defendant's treatment of Claims 8 and 9 lies in plaintiff's reliance on the principle that where the parts are old but coact to give a new result, patentable invention is present, *Faulkner v. Gibbs*, 338 U.S. 267, 268, while defendant contends that the various parts of the point function independently and there is no coaction, and hence, no patentable invention. *A & P Tea Co. v. Supermarket Corp.*, 340 U.S. 147. Furthermore, says the defendant, the teachings of the Baer Patent and the Mekeel Patent are identical, the entire structure of Baer being described in the earlier Mekeel Patent.

During argument on Motion for Summary Judgment, plaintiff urged three features as being the major distinctions between Baer and Mekeel structures as they relate to Claims 8 and 9, namely, (1) the reversal of the tongues and recesses (by putting the tongues on the point and the recesses in the adapter); (2) the heavier upper spike portion of the Baer point; and (3) spacing between the parts of the point and the adapter. The colloquy between the Court and counsel was as follows:

"The Court: You mean then, that you solved the problem of long standing by reversing the tongues?"

"Mr. Fallon: First.

"The Court: Beefing up the point?"

"Mr. Fallon: Second, yes, sir.

[490] "The Court: By putting on a heavier spike top?"

"Mr. Fallon: Yes, sir.

"The Court: And by providing a non-closure between the two of them?"

"Mr. Fallon: Yes, Your Honor, three things."

In addition to the above, plaintiff urges as significant the fact that the Mekeel point was symmetrical (reversible) and that therefore the upper and lower edges of the tongues and recess could not both be parallel to each other and also to the upper wedge face of the adapter nose, and that there could be no stabilizing effect in the functional operation of the Mekeel tooth.

With relation to the three major and distinctive features relied upon by plaintiff in support of Claims 8 and 9, defendant contends that each feature is old and may be found in the prior art, as exemplified in various patents introduced in evidence through its witness, Dirks Foster. That each of these features, if considered separately, may be said to have been anticipated by the prior art, exemplified by patents offered in evidence seems clear, but the big and narrower question is, do these features operate independently of each other or are they so coactive as to bring a new and useful result. In answering this question, while it is true that Mr. Foster, a patent attorney, testified that these three features operate independently of each other, the fact remains that such testimony is argumentative in character and must be viewed with caution. *Kohn v. Eimer*, 265 F. 900, 902; *Rogers v. Hensley*, 194 Cal. App. 2d 486, 492. See also *Rick-Wil Co. v. E. B. Kaiser Co.*, 179 F. 2d 401, 405, and *Hughes Tool Co. v. Chicago Pneumatic Tool Co.*, 90 F. Supp. 845, 847. It does not overcome the testimony of plaintiff's engineers, Eyolfson and Wilcox, who testified [491] that the tips of points under harsh stresses deflect as much as one and one-half inches, which, because of the heavy beam sections, is transmitted to the rear of the points, causing the tongues to come in engagement with the upper or lower surfaces of the recesses, depending upon the direction of impact and by providing a greater spacing; it is

manifest that only the stronger transverse impact will result in the tongue contact. Eyolfson testified in part:

"The Witness: That is the primary function of the tongue, to add to the stabilization. There is some stabilization accomplished by forces of friction, but in an impact blow, you don't have static friction, you get into moving friction, and it doesn't take too much for this wedge face bearing to get lost. And actually it applies to the tongues. *You see, if this moves forward just a very small amount, then any gap that's in here is very rapidly taken up. And besides that, this heavy portion here is not only there for wear but it's also to create a very strong beam.* So that when you do pivot about this, as a slight amount of separation takes place and you do pivot about this, then your tongues will come into contact as soon as possible. *It is sort of like an overload spring, Your Honor. It doesn't work unless it's needed, but it is there whenever you get the heavy blow.*" (Emphasis added). (R. 53, 54).

Wilcox testified in part:

"A. The stress was applied right out here on the tip of the point.

"Q. And where, if any place, was that stress transmitted to?

[492] "A. Well, the stress was transmitted along this upper spike portion here. The upper portion of this tooth is quite a bit heavier than the lower box structure. This is what we call the spike portion.

"Q. I hand you now Plaintiff's Exhibit 2, and perhaps you can acquaint the Court with what you mean by spike section.

"A. You can see here, Your Honor, this top part, which is called the spike portion.

"Q. That's designated 43?

"A. 42.

"Q. 42?

"A. And 43, both, yes. 42 is the top surface, 43 I believe is the edge of this surface. It's quite a bit heavier. *And this is done purposely, because this is a sort of a cantilever out here. You get your greatest forces out on the tip, and we have to have this heavy cantilever section to transmit these forces back here where they are resisted.*" (Emphasis added). (R. 198, 199).

This factual testimony from qualified engineers, to whose testimony the Court attaches more weight than to that of the patent attorney, leads the Court to the conclusion that while these three features may and could operate independently of each other, in fact, in the Baer Patent they are coactive and bring about a new and useful result, namely, added stabilization when destructive forces are applied transversely to the tip of the tongue, thereby protecting the pin against deformation. This gives the Esco (Baer) point the commercial advantage obtainable from a readily removable point. This combination is, therefore, both new [493] and useful and solves an important problem in the heavy construction industry. It constitutes invention for Claims 8 and 9 of the Baer Patent unless it can be established that all three of these features are found in the Mekeel Patent or are obvious therefrom to one skilled in the particular art at the time the invention was made.

While it might be plausibly reasoned, as Mr. Foster did, that the tongues on the adapter of the Mekeel Patent which fit into the recesses of the point are the equivalent of the tongues on the Baer point which fit into the recesses of the adapter, this is not a true equivalent because there is a difference in the strength and ability of the tongues to withstand force when the tongues are on the point rather than on the adapter. This was admitted by Mr. Foster when he said:



“There is probably a difference between the tongues extending rearwardly from the point and extending forwardly from the adapter, but it is a matter of degree and I can’t tell how much a degree.” (R. 480).

Furthermore, if the recesses are on the point, as in Mekeel, it has a disadvantage “in that you have weakened the structure by notching it out here, and it is possible that stresses will build up in this notch which will weaken the point itself.” (R. 288, 289). Another difference claimed by plaintiff and mentioned above and sustained by the evidence is the fact that the point in Mekeel was symmetrical (R. 545). Therefore, the upper and lower edge of the tongue and recess could not be substantially parallel to each other and also to the upper wedge face of the adapter nose.

Furthermore, even if it could be said that Mekeel teaches that the tongue can be on *either the point or the* [494] *adapter*, the fact remains that Mekeel *does not provide the second coactive feature of Baer, the heavy upper spike portion of the point*. The fact that the Mekeel point is symmetrical and hence reversible is not the equivalent of a heavy upper spike portion. The upper and lower faces (if there is a true upper and lower face to a reversible point) and the sides of the Mekeel point appear to be of the same thickness. Mekeel can’t give the same heavy cantilever action provided by the spiked portion of the Baer point. Hence, neither this feature nor an equivalent thereof appear in Mekeel. The fact that a heavy upper spiked portion of the tooth appeared in other prior patents which did not provide the other coactive elements of Baer does not void the Baer patent. The absence of this spiked portion of the Baer Patent alone is sufficient to defeat defendant’s claim that Mekeel anticipated Baer.

The third feature of Baer, the spacing between the point and the adapter, is not provided in Mekeel. The specifica-

tions of Mekeel when applied to figures 8 and 9 of the Mekeel Patent (see appendix) show:

"In this case, 14<sup>a</sup> indicates the tenon formed on the nose 16<sup>a</sup> of the base 12<sup>a</sup>. 18<sup>a</sup> indicates the shoulder on the nose, which is *adapted for engagement* with the base of the point 13<sup>a</sup> when the points are assembled." (Lines 69-73 of page 2, Mekeel Patent No. 1,845,677, underscoring added.)

If the other features of Baer were present in Mekeel, this specification might not be too important in view of the testimony of plaintiff's expert that spacing would arise from usual manufacturing tolerances.

While the Mekeel Patent was never utilized, and no known manufacture resulted from which its effectiveness [495] could be evaluated, there is serious doubt that a functional operation of Mekeel would provide the desired stabilizing effect. Mr. Eyolfson testified:

"The Court: In other words you tell me there is no stabilizing effect there.

"The Witness: That's right, and what's even more important is that once that thing moves forward in any degree, it could not return because the thing would seize tremendously . . ." (R. 630)

The basic teaching of Mekeel is entirely different from that of Baer. Mekeel does not rely on tongues for additional stabilization, since a rigid lock is brought about by the expanded tenon which provides the connection between the point and the adapter. This Mekeel contribution is carefully specified in each of the Mekeel claims.

Defendant has failed to prove that what Baer did was *not new*. Defendant has also failed to prove that the differences between claims 8 and 9 of Baer and the prior art as a whole would have been obvious at the time invention

was made to a person having ordinary skill in the art to which the subject matter of these claims pertains. The Court finds that while the pertinent separate features of each of claims 8 and 9 have appeared separately in prior patents, the Court further finds that each such prior art patent has *less than the full combination of elements specified in either Claims 8 or 9*. Furthermore, none of the prior art patents teach a replaceable point where the heavy spike section transmits impact forces to rearwardly extending tongues during the deformation of the entire tooth, this teeter-totter like transmission being made possible by the spacing of the point and adapter. The Court finds that the combination of the elements found in each of Claims 8 and 9 [496] result is something new, a new coaction between elements, which would not have been obvious to one skilled in the particular art at the time invention was made. See *Radiator Specialty Co. v. Micek*, 327 F. 2d 554, 555; *Bates v. Coe*, 98 U.S. 31, 49. The failure of the art to adopt an allegedly anticipating structure is a significant indication of the novelty of Baer when he came up with a satisfactory two-part tooth that met with immediate and wide commercial success. See *Artmoore Co. v. Dayless Mfg. Co.*, 208 F. 2d 1, 4; also *Washburn & Moen Mfg. Co. v. Beat-em-All Barbed Wire Co.*, 143 U.S. 275, 282, 283.

The Court finds no misuse of Esco Model No. R.3 (the smallest assembly of point and adapter). Esco and its licensees manufacture a number of varieties of 3" size points. These points lack the previously referred to rearwardly-extending tongues. The 3" style teeth are made up of the adapter, point, pin and plug. Both the points and the adapters are marked with the patent number in suit. The Court finds that this is justified, notwithstanding the absence of the rearwardly-extending tongues, since a substan-

ially longer locking pin is used in combination with a pin-receiving recess in the point to constitute additional stabilizing means as called for under Claim 5 of the patent in suit. As the witness Wilcox testified, "the additional stabilizing means would be the fact that the pin goes all the way through the bottom, the box section here, so as to hold it on more firmly." (R. 229). In making this finding the Court is still not thereby passing upon the validity of Claim 5, since the presumption of validity alone is sufficient against a misuse defense of the character presented in this case where the misuse relates exclusively to the markings of [497] the numbers of the patent upon the manufactured pieces. Furthermore, these markings were placed on the two pieces on advice of plaintiff's patent attorney (R. 284, 285). Under such circumstances, it cannot be said that the defendant comes into court with unclean hands.

Based upon the record before it, the Court finds nothing in the conduct of the parties to justify an award of punitive damages or attorneys' fees to either party, and the same is, therefore, denied to each.

Before concluding, the Court observes that it attaches no particular weight to the teeth offered in evidence by defendant from the so-called Pleasanton operation, since there is no clear indication of the stress forces applied in that operation, and such evidence as was presented might reasonably cause one to conclude that it was a light-duty operation, a re-handling of material, as contrasted to a normal construction project.

Finally, the Court finds that the evidence does not sustain defendant's defense of file wrapper estoppel.

Based upon the foregoing, it is accordingly ordered that judgment be entered in favor of plaintiff as to validity and infringement of Claims 8 and 9 of the Baer Patent

and against plaintiff as to its claim that defendant infringed Claim 5 of said Patent by inducement. Plaintiff shall prepare findings of fact, conclusions of law and judgment consistent with this opinion.

Dated: September 3, 1965.

ALFONSO J. ZIRPOLI

*United States District Judge*



[498]

APPENDIX

[499]

No. 39806 23 A  
 Filed OCT 6 - 1964  
 James P. Welsh, Clerk

## CLAIM 8

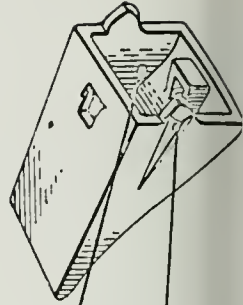
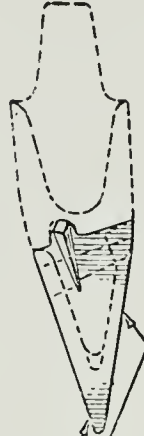
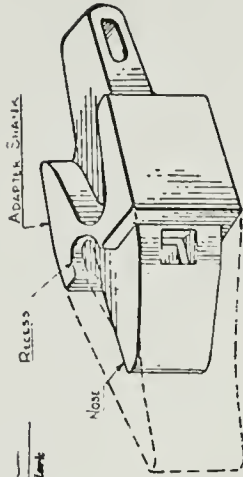
An excavating tooth point adapted to receive the wedge-shaped nose of an adapter having upper and lower faces diverging from a substantially rounded front end portion, substantially parallel side faces, and an enlarged rear shank portion in which recesses extend from the side faces longitudinally of the nose and have substantially parallel side edges which are substantially parallel to one of said diverging faces and disposed between the planes of the diverging faces, and comprising, in combination,

a spike portion of relatively heavy section,

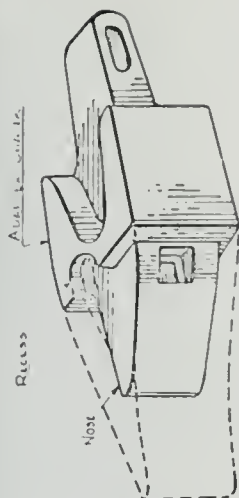
a housing portion having side walls and an integral web forming with the spike portion -

a wedge-shaped socket having an open end at one end of the spike portion, said wedge-shaped socket being of a length and shape normally and firmly to receive the wedge-shaped nose of the adapter with the space between the nose and adapter at the vertex of socket and with said spike and housing portions substantially spaced from the shank portion of the adapter, and

said side walls of the housing portion having integral projecting tongues thereon adjacent the open end of the socket, and said tongues having substantially parallel side edges adapted to fit into said recesses of the adapter shank portion when the nose is seated in the socket, thereby to support the tooth on the adapter in directions transverse



[500]

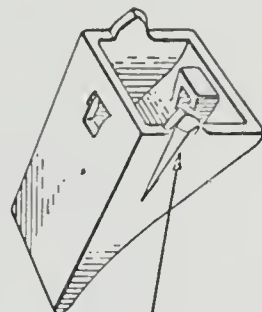


No. 39806  
 Patent Exhibit No. 34A  
 Filed 6-16-1964

James P. Welsh, Clerk

By *[Signature]*  
 Deputy Clerk.

integral snake and housing portions together forming a wedge-shaped socket having wedge faces of an angularity substantially equal to that of the diverging adapter wedge faces and lengths such that the adapter nose is normally spaced from the socket vertex,



said housing portion having opposed and integral side tongues thereon displaced laterally of the socket wedge faces and projecting rearwardly from the housing portion, said tongues having substantially parallel edges in parallel relationship to one of the socket wedge faces and adapted to fit between the parallel edges of said recesses to provide support for the tooth point in addition to the wedge faces, and said tongues being normally too short to reach the ends of said recesses so as to prevent their interference with the seating of the wedge faces.

[503]

No. 37400 *JA*  
 Exhibit No. BB  
 Filed OCT 6 - 1964  
 James P. Welsh, Clerk  
 By P. G. G. G.  
 Deputy Clerk

Feb. 16, 1932.

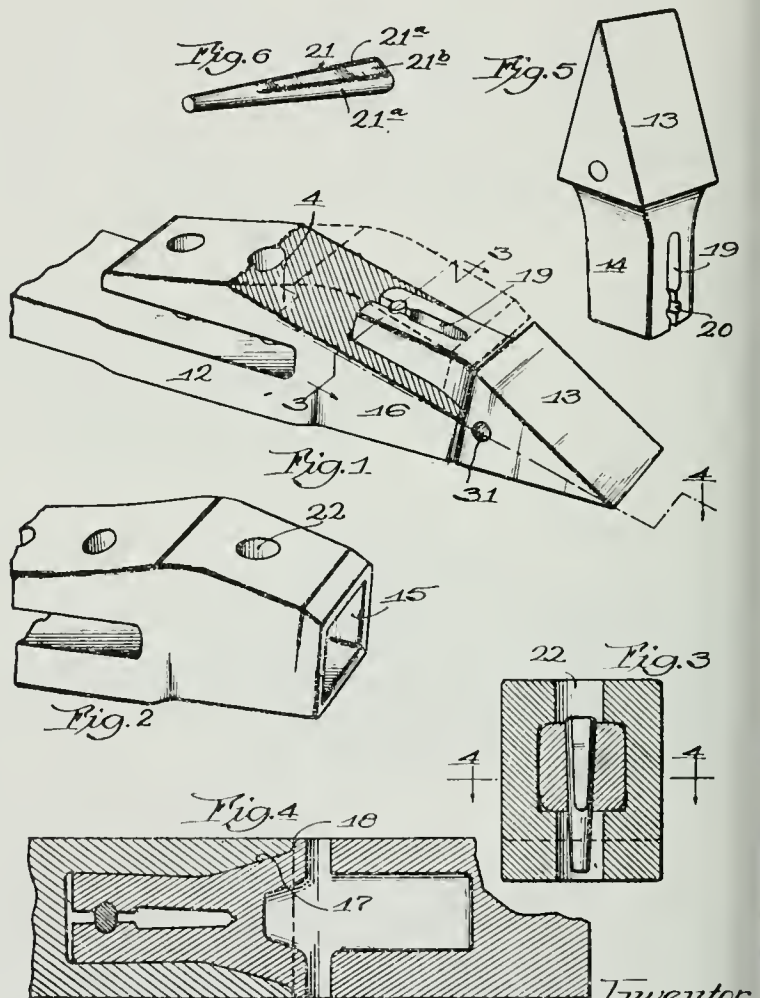
VAN CORTRIGHT MEKEEL

1,845,677

DIGGING TOOTH

Filed March 9, 1929

2 Sheets-Sheet 1



Witness:  
*Chas. R. Koush.*

Twentor  
 Van Cortright Mekeel,  
*Clark E. Meekins*

[504]

Feb. 16, 1932.

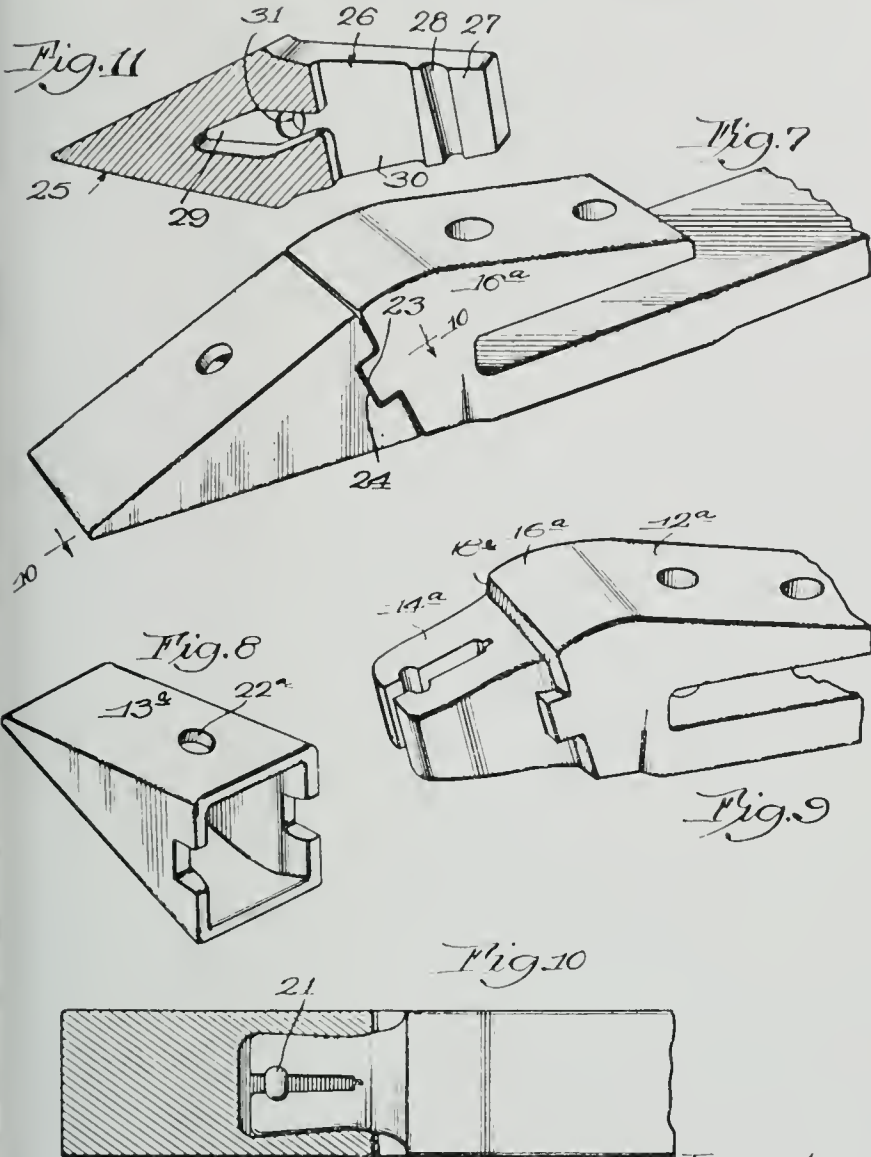
VAN CORTRIGHT MEKEEL

1,845,677

DIGGING TOOTH

Filed March 9, 1929

2 Sheets-Sheet 2



Witness:  
*Chas. F. Koush.*

Inventor:  
*Van Cortright Mekeel,*  
*Charles E. Waller,*  
*Attys.*



